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ET-99 May 1937

United States Department of Agriculture
Bureau of Entomology and Plant Quarantine
in cooperation with the
Texas Agricultural Experiment Station

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JUN 30 1937
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METHOD OF REARING MICROBRACON KIRKPATRICKI WILK. AND MICROBRACON MELLITOR SAY

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The method herein described is used in rearing Microbracon kirkpatricki and M. mellitor on the pink bollworm, Pectinophora gossypiella Saund. These parasites do not attack larvae openly exposed, and the method could probably be used in rearing other species that have similar habits of oviposition. Its two principal features are (1) the confining of the live host larvae so as to make them easily accessible to the female parasite and (2) the use of a cloth oviposition cage through which the female parasite may deposit eggs on the hosts confined against the cloth outside the cage.

The oviposition cage (fig. 1) consists of cloth stretched over a wood frame 10½ by 12 by 14 inches, inside dimensions, and is assembled with the cloth turned inside to prevent the parasites from wedging themselves between the cloth and the wood frame. One end is removable and is held in place by rubber bands. This cage, originally used as an emergence cage only, now serves as an oviposition cage without any transfer of adults after emergence. Approximately 400 parasite spin-ups are placed in each cage, which is supplied with food as soon as the adults emerge.

The live host larvae are confined between a heavy paper and a loosely woven cloth stretched in an embroidery hoop. Approximately 150 pink bollworms are placed in a 5-inch hoop. The hoop is placed on the outside of the oviposition cage with the cloth pressed against the cloth cage cover. It is held in place by a rubber band (fig. 1). The parasites oviposit through the two layers of cloth, that of the cage cover and that fastened in the hoop. By this method the host larvae are exposed to the female parasite without opening the oviposition cage. The hoop is removed from the cage after an exposure of 24 hours. It is allowed to remain intact until the parasite larvae have completed development and spun cocoons. All of these cocoons are attached to the paper, allowing removal of the cloth without disturbing the spin-ups. The discs of paper containing the parasite spin-ups may be placed in emergence cages or prepared for shipment.

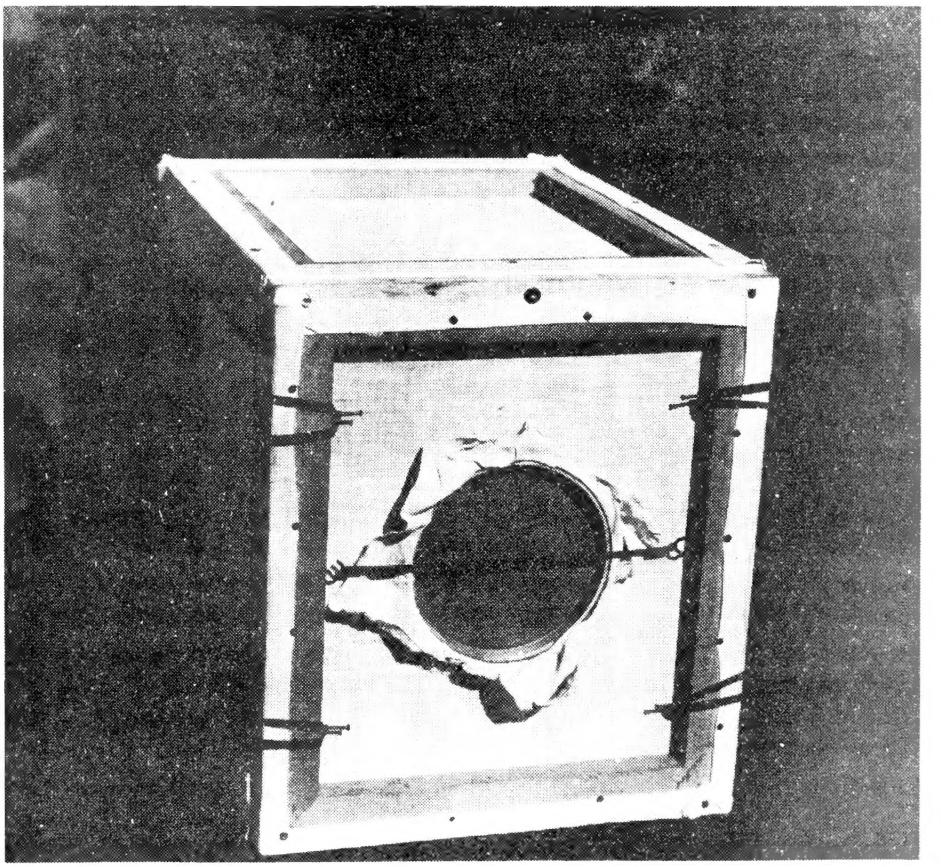

Figure 1.--Oviposition cage with embroidery hoop containing host larvae in place.